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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,534	06/27/2001	Jeong Hyun Kim	8733.469.00	3209

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EXAMINER

TON, MINH TOAN T

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/891,534

Applicant(s)

KIM ET AL.

Examiner

Toan Ton

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

2. Claims 22, 24-27, 30, 32-35 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Yokoyama et al (US 6507379).

Yokoyama discloses a liquid crystal display device comprising: a liquid crystal panel having a liquid crystal layer sandwiched between a pair of substrates; an organic EL element disposed outside the surface of one of the substrates. See at least Figure 4.

Yokoyama discloses the organic EL element comprising a dielectric multi-layer film 121, a transparent electrode 123, a reflecting electrode 126, a hole transport layer 124, an organic luminescent layer 125.

3. Claims 22, 30 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Okibayashi et al (US 5504599).

Okibayashi discloses a liquid crystal display device: a liquid crystal panel having a liquid crystal layer sandwiched between a pair of substrates; an EL element disposed outside the surface of one of the substrates. See at least Figures 1(1) and 1(2).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-21, 23, 28-29, 31, 36-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yokoyama et al as applied to claims 22, 24-27, 30, 32-35 above.

The limitation not explicitly disclosed by Yokoyama is the use of thin film transistors. The use of thin film transistors is common and known in the art for several advantages such as cross-talk reduction. Therefore, it would have been obvious to one of ordinary skill in the art to employ thin film transistors for advantages such as cross-talk reduction.

Yokoyama discloses the device comprising a polarizer disposed on each of the substrates. It is known and a common goal in the art to minimize components, thus resulting in several advantages such as a thinner display, which is accomplished by eliminating extra layers. Forming a substrate and a polarizer as a single layer that perform the functions of both with only one layer. Therefore, it would have been obvious to one having ordinary skill in the art to combine the substrate and the polarizer into a single layer (that performs the functions of both) for several advantages such as thinner display.

The use of an organic material (e.g., polycarbonate, polyimide) for the substrate is common and known in the art for several advantages such as high flexibility, lighter-device. Therefore, it would have been obvious to one having ordinary skill in the art to employ an

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organic material (e.g., polycarbonate, polyimide) for the substrate for several advantages such as high flexibility, lighter-device.

The use of color filters is common and known for achieving a color display device. Therefore, it would have been obvious to one having ordinary skill in the art to employ color filters for achieving a color display device.

The use of a black matrix is common and known for advantages such as good resolution. Therefore, it would have been obvious to one having ordinary skill in the art to employ a black matrix for advantages such as good resolution.

The use of other light emitting structures such as LED is an obvious (i.e., not distinct) variation to one of ordinary skill in the art.

6. Claims 1-21, 23-29, 31-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okibayashi et al as applied to claims 22 and 30 above, and further in view of Yokoyama et al (US 6507309).

The limitations not disclosed by Okibayashi are thin film transistors, organic EL element.

EL devices employing inorganic materials yield several disadvantages such as high driving voltages, (see col. 1, lines 47-57 of Yokoyama). Therefore, it would have been obvious to one of ordinary skill in the art to employ organic EL element for advantages such as low driving voltages.

Okibayashi discloses the substrates comprising materials such as high molecular compound film.

Per the use of thin film transistors, see detailed explanations of above.

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Per the use of a black matrix, see detailed explanations of above.

Per the use of the use of color filters, see detailed explanations of above.

The use of a polarizer is common and known in the art for advantages such as high contrast. It is known and a common goal in the art to minimize components, thus resulting in several advantages such as a thinner display, which is accomplished by eliminating extra layers. Forming a substrate and a polarizer as a single layer that perform the functions of both with only one layer. Therefore, it would have been obvious to one having ordinary skill in the art to combine the substrate and the polarizer into a single layer (that performs the functions of both) for several advantages such as thinner display.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Hu (US 5763110) discloses that EL devices employing inorganic materials yield several disadvantages such as high driving voltages.

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Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan Ton whose telephone number is (703) 305-3489. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

February 21, 2003


TOANTON
PRIMARY EXAMINER